

hApo2LI

hTNER1

hTNER2

hTNERip

hFAS/Apo1

hILNGER

hCD40

hCD27

hCD30

hOX40

34	D	C	A	G	D	-	-	-	-	F	H	K	K	I	G	L	F	C	C	R	G	C	P	A	G	H	Y	L	K	A	P	C	T	E	P	C	G	N	S	T	C	L	
43	V	C	P	Q	G	K	-	-	-	Y	I	H	P	Q	N	N	S	I	C	C	T	K	C	H	K	G	T	Y	L	Y	N	D	C	P	G	P	G	Q	D	T	D	C	R
39	T	C	R	L	R	E	-	-	-	Y	Y	D	Q	T	A	Q	M	C	C	S	K	C	S	P	G	Q	H	A	K	V	F	C	T	K	T	-	S	D	T	V	C	D	
42	T	C	R	D	Q	E	K	E	-	Y	Y	E	P	Q	H	R	I	C	C	S	R	C	P	P	G	T	Y	V	S	A	K	C	S	R	I	-	R	D	T	V	C	A	
48	N	L	E	G	L	-	-	-	-	H	H	D	G	Q	F	C	H	K	P	C	P	P	G	E	R	K	A	R	D	C	T	V	N	G	D	E	P	D	C	V			
31	A	C	P	T	G	-	-	-	-	L	Y	T	H	S	G	E	C	K	A	C	N	L	G	E	G	V	A	Q	P	C	G	A	-	N	Q	T	V	C	E				
25	A	C	R	E	K	-	-	-	-	Q	Y	L	I	N	S	Q	C	C	S	L	C	Q	P	G	Q	K	L	V	S	D	C	T	E	F	-	T	E	T	E	C	L		
26	S	C	P	E	R	-	-	-	-	H	Y	W	A	Q	G	K	L	C	Q	M	C	E	P	G	T	F	L	V	K	D	C	D	Q	H	R	K	A	Q	C	D			
28	T	C	H	G	N	P	S	H	-	Y	Y	D	K	A	V	R	R	C	C	Y	R	C	P	M	G	L	F	P	T	Q	Q	C	P	Q	R	-	-	P	T	D	C	R	
30	H	C	V	G	D	T	-	-	-	Y	P	S	N	D	R	C	C	H	E	C	R	P	P	G	N	G	M	V	S	R	C	S	R	S	-	Q	N	T	V	C			

hApo2LI

hTNER1

b7E2

hTNERip

hFAS/Ado1

h1,NGER

hCD40

hCPD27

bcp30

b0X40

72	V	C	P	Q	D	-	T	F	L	A	W	E	N	H	H	S	E	C	A	R	C	-	Q	A	C	D	E	Q	A	S	Q	V	A	L	E	N	C	S	A	V	A	D	T	R	C	G
83	E	C	E	S	G	-	S	F	T	A	S	E	N	H	L	R	H	C	L	S	C	-	S	K	C	R	K	E	M	Q	V	E	I	S	S	C	T	V	D	R	T	V	C	G		
77	S	C	E	D	S	T	Y	T	Q	L	W	N	W	V	-	P	E	C	L	S	C	G	S	R	C	S	S	-	-	D	Q	V	E	T	Q	A	C	T	R	E	Q	N	I	C	T	
82	T	C	A	E	N	S	N	E	H	W	N	Y	L	-	T	I	C	Q	L	C	-	R	P	C	D	P	V	M	G	L	E	E	I	A	P	C	T	S	K	R	K	T	Q	C	R	
84	P	C	Q	E	G	K	E	Y	T	D	K	A	H	F	S	S	K	C	R	R	C	-	R	L	C	D	E	G	H	G	L	E	V	E	I	N	C	T	R	T	O	N	T	K	C	
66	P	C	L	D	S	V	T	F	S	D	V	V	S	A	T	E	P	C	K	P	C	-	T	E	C	V	G	L	-	-	Q	S	M	S	A	P	C	V	E	A	D	D	A	V	C	
61	P	C	G	E	S	E	F	L	D	T	W	N	R	E	-	T	H	C	H	Q	H	-	K	Y	C	D	P	N	L	G	L	R	V	Q	Q	K	G	T	S	E	T	D	T	I	C	
64	P	C	I	P	G	V	S	F	S	P	D	H	H	T	R	P	H	C	E	S	C	-	R	H	C	N	S	G	L	L	V	R	-	-	N	C	T	I	T	A	N	A	E	C		
68	Q	C	E	P	D	-	Y	Y	L	D	E	A	D	R	-	-	C	T	A	C	-	V	T	C	S	R	D	D	L	V	E	K	T	-	P	C	A	W	N	S	S	R	V	C		
66	P	C	G	P	G	-	F	Y	N	D	V	V	S	S	K	P	-	C	K	P	C	-	T	W	C	N	L	R	S	G	S	E	R	K	Q	L	C	T	A	T	Q	D	T	V	C	

FIG. 2A

hApo2LI	116	C K P G W F V E C Q V S Q C V S S S P F Y C Q P C L D C G A L H R H T R L L C S R R D - T D C G - T
hTNFR1	127	C R K N Q Y R H Y W S E N L - - - - F Q C F N C S L C L N G - - T V H L S C Q E K Q N T V C - - T
hTNFR2	120	C R P G W Y C A L S K Q E G C - - - - R L C A P L R K C R P G - F G V A R P G T E T S D V V C K - P
hTNFRrp	126	C Q P G M F C A A W A L E C - - - - T H C E L L S D C P P G T E A E L K D E V G K G N N H C V - P
hFAS/Apo1	129	C K P N F F - - C N S T V C - - - - E H C D P C T K C E H G I - - - I K E C T L T S N T K C K -
hLINGR	109	C A Y G Y Y Q D E T T - - - - - G R C E A C R V C E A G S G L - V F S C Q D K Q N T V C E - E
hCD40	105	C E E G W H C T S E A C - - - - - E S C V L H R S C S P G F G - V K Q I A T G V S D T I C E - P
hCD27	106	C R N G W Q C R D K E C - - - - - T E C D P L P N P S L T A R S S Q A L S P H P Q P T H L P -
hCD30	108	- C R P G M F C S T S A V N S C - - - - A R C F F H S V C P A G M I V K F P G T A Q K - N T V C E -
hOX40	109	- C R A G T Q P L D S Y K P G - - - - - V D C A - - - - -

FIG. 2B

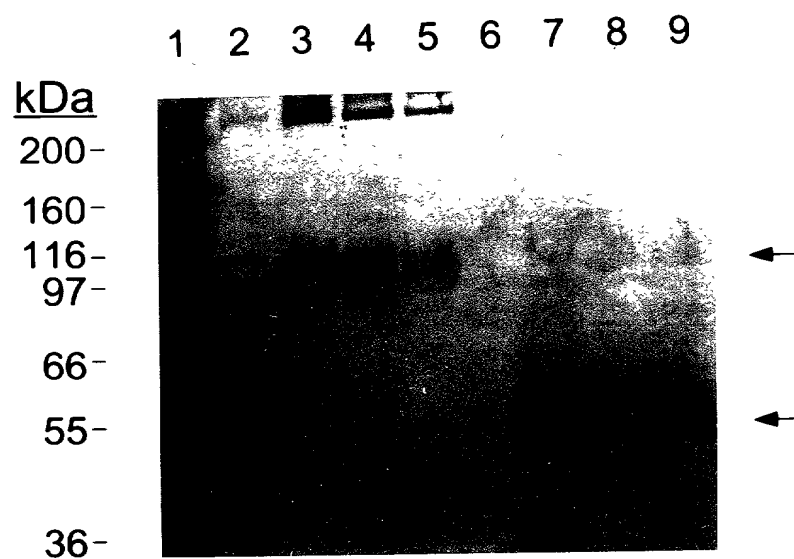


FIG. 3

A circular diagram showing the distribution of 1000 respondents by age group. The circle is divided into segments representing different age ranges: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, and 85+. The segments are labeled with their respective percentages of the total respondents.

FIG. 4A

541 ACGGCTACTC TGTTCCCGCA GAGATACTGA CTGTGGGACC TGCCCTGCCCTG GCTTCTATGA
152 R L L C S R R D T D C G T C L P G F Y E

601 ACATGGCGAT GGCTGCGTGT CCTGCCCCAC GAGCACCCCTG GGGAGCTGTC CAGAGCGCTG
172 H G D G C V S C P T S T L G S C P E R C

661 TGCCGCTGTC TGTGGCTGGA GGCAGATGTT CTGGGTCCAG GTGCTCCTGG CTGGCCTTGT
192 A A V C G W R O M F W V O V L L A G L V

721 GGTCCCCCTC CTGCTTGGG CCACCCCTGAC CTACACATAC CGCCACTGCT GGCCTCACAA
212 V P L L L G A T L T Y T Y R H C W P H K

781 GCCCCTGGTT ACTGCAGATG AAGCTGGGAT GGAGGCTCTG ACCCCACCAC CGGCCACCCA
232 P L V T A D E A G M E A L T P P P A T H

841 TCCTGCACCC TTGGACAGCG CCCACACCCCT TCTAGCACCT CCTGACAGCA GTGAGAAGAT
252 L S P L D S A H T L L A P P D S S E K I

901 CTGCACCGTC CAGTTGGTGG GTAACAGCTG GACCCCTGGC TACCCCGAGA CCCAGGAGGC
272 C T V Q L V G N S W T P G Y P E T Q E A

961 GCTCTGCCCG CAGGTGACAT GGTCCCTGGA CCAGTTGCCC AGCAGAGCTC TTGGCCCCGC
292 L C P Q V T W S W D Q L P S R A L G P A

1021 TGCTGCGCCC ACACTCTCGC CAGAGTCCCC AGCCGGCTCG CCAGCCATGA TGCTGCAGCC
312 A A P T L S P E S P A G S P A M M L Q P

FIG. 4B

1081 GGGCCCGCAG CTCTACGACG TGATGACGC GGTCCCAGCG CGGCGCTGGA AGGAGTTCGT
 332 G P Q L Y D V M D A V P A R R W K E F V

 1141 GCGCACGCTG GGGCTGCGCG AGGCAGAGAT CGAAGCCGCG GAGGTGGAGA TCGGCCGCTT
 352 R T L G L R E A E I E A V E V E I G R F

 1201 CCGAGACCAG CAGTACGAGA TGCTCAAGCG CTGGCGCCAG CAGCAGCCCG CGGGCCTCGG
 372 R D Q Q Y E M L K R W R Q Q Q P A G L G

 1261 AGCCGTTTAC GCGGCCCTGG AGCGCATGGG GCTGGACGGC TCGGTGGAAG ACTTGCGCAG
 392 A V Y A A L E R M G L D G C V E D L R S

 1321 CCGCCTGCAG CGCGGCCCGT GACACGGCGC CCACTTGCCA CCTAGGCGCT CTGGTGGCCC
 412 R L Q R G P

 1381 TTGCAGAAGC CCTAAGTACG GTTACTTATG CGGTAGACA TTTTATGTCA CTTATTAGC

 1441 CGCTGGCACC GCCCTGCGTA GCAGCACCAG CCGGCCCCAC CCCTGCTCGC CCCTATCGCT

 1501 CCAGCCAAGG CGAAGAAGCA CGAACGAATG TCGAGAGGGG GTGAAGACAT TTCTCAACTT

 1561 CTCGGCCGGA GTTTGGCTGA GATCGCGGTA TTAATCTGT GAAAGAAAC AAAAAAAAAA

 1621 AAAAAAAAAA AAAA

FIG. 4C

Apo3	1	MEQRP	RGCA	AAV	AAAL	LLV	LLG	ARA	QGG	TR	SPR	-----																																					
TNFR1	1	MGLST	VPDL	LLPL	-VLL	ELL	VGI	YPS	GV	IGL	VPH	LGDR	EKR	DSV																																			
Fas/Apo1	1	MLGIW	TLLP	LVLT	SVAR	LS	SSK	SVNA	QVT	DINS	SKGL	ELR	KTV	TTV																																			
Apo3	33	CD	CAGD	FHKK	I	GLF	CC	RG	CP	AGH	Y	LK	APCT	EP	C	GN	ST	CL	V																														
TNFR1	44	CP	Q	GKY	I	HP	QNN	SIC	CTK	CH	KGT	Y	LYND	CP	GG	Q	DT	D	CR	E																													
Fas/Apo1	45	ET	Q	NLE	GL	HD	G	QF	CH	KP	CP	GER	KARD	CT	VN	G	DE	P	D	C	V	P																											
Apo3	73	CP	Q	D	T	F	L	A	W	E	N	H	H	N	S	E	C	A	R	C	Q	A	C	D	E	Q	A	S	Q	V	A	L	E	N	C	S	A	V	A	D	T	R	C	G					
TNFR1	85	C	E	S	G	S	F	T	A	S	E	N	H	L	R	H	-	C	L	S	C	S	K	C	R	K	E	M	G	Q	V	E	I	S	S	C	T	V	D	R	D	T	V	C	G				
Fas/Apo1	85	C	Q	E	G	K	E	Y	T	D	K	A	H	F	S	S	K	C	R	C	R	L	C	D	E	G	H	G	L	E	V	E	I	N	C	T	R	T	Q	N	T	K	C	R					
Apo3	117	CK	P	G	W	F	V	E	C	Q	V	S	Q	C	V	S	S	S	P	F	Y	C	Q	P	C	L	D	C	G	A	L	H	R	H	T	R	L	L	C	S	R	R	D	-	T	D	C	G	T
TNFR1	127	C	R	K	N	Q	Y	R	H	Y	W	S	E	N	L	F	Q	-	-	-	-	C	F	N	C	S	L	C	L	N	G	T	V	H	L	S	-	-	C	Q	E	K	Q	N	T	V	C	T	-
Fas/Apo1	129	CK	P	N	F	-	-	C	N	S	T	V	C	E	H	-	-	-	-	-	-	C	D	P	C	T	K	C	E	H	G	I	I	K	E	-	-	-	C	T	L	T	S	N	T	K	C	K	E
Apo3	165	CL	P	G	F	Y	E	H	G	D	G	C	V	S	C	P	T	S	T	L	G	S	C	P	-	-	E	R	C	A	A	V	C	G	W														
TNFR1	168	CH	A	G	F	F	L	R	E	N	E	C	V	S	C	S	-	-	-	-	-	N	C	K	K	S	L	E	C	T	K	L	C	L	P														

FIG. 5

Apo3	338	VMDA	V	P	A	R	R	W	K	E	F	F	V	R	T	L	G	L	R	E	A	E	I	E	A	V	E	I	G	R	-	-	F	R	D	Q	Q	Y	E					
TNFR1	333	V	V	E	N	V	P	P	L	R	W	K	E	F	F	V	R	R	L	G	L	S	D	H	E	I	D	R	L	E	L	Q	N	G	R	-	C	L	R	E	A	Q	Y	S
Fas/Apo1	220	I	A	G	V	M	T	L	S	Q	V	K	G	F	V	R	K	N	G	V	N	E	A	K	I	D	E	I	K	N	D	N	V	Q	D	T	A	E	Q	K	V	-	Q	
FADD	104	I	C	D	N	V	G	K	-	D	W	R	R	L	A	R	Q	L	K	V	S	D	T	K	I	D	S	I	E	D	R	Y	P	R	N	-	L	T	E	R	V	R	E	
TRADD	211	N	R	P	L	S	L	K	-	D	Q	Q	T	F	A	R	S	V	G	L	K	W	R	K	V	G	R	-	S	L	Q	R	G	C	R	A	L	R	D	P	A	L	D	
RIP	291	I	R	E	N	L	G	K	-	H	W	K	N	C	A	R	K	L	G	F	T	Q	S	A	I	D	E	I	D	H	D	Y	E	R	D	G	L	K	E	K	V	Y	Q	
Reaper	1	M	A	V	A	F	Y	I	P	D	Q	A	T	L	L	R	E	A	E	Q	K	E	Q	I	L	R	-	L	R	E	S	Q	W	R										

Apo3	378	M	L	K	R	W	R	Q	Q	P	-	-	A	G	L	G	A	V	Y	A	L	E	R	M	G	L	-	D	G	C	V	E	D	L	R	S				
TNFR1	374	M	L	A	T	W	R	R	R	E	A	T	L	E	L	L	G	R	V	L	R	D	M	D	L	-	L	G	C	L	E	D	I	E	E					
Fas/Apo1	261	L	L	R	N	W	H	Q	L	H	G	-	K	K	E	A	Y	D	T	L	I	K	D	L	K	K	A	N	L	C	T	L	A	-	E	K	I	Q	T	
FADD	144	S	L	R	I	W	K	N	T	E	-	K	E	N	A	T	V	A	H	L	V	G	A	L	R	S	C	-	-	Q	M	N	L	V	A	D	L	V		
TRADD	251	S	L	A	Y	E	E	R	E	G	L	Y	E	Q	A	F	Q	L	L	R	R	F	V	-	Q	A	E	G	R	R	A	T	L	Q	R	L	V	E		
RIP	332	M	L	Q	K	W	V	M	R	E	G	I	K	G	A	T	V	G	K	L	A	Q	A	L	H	Q	C	-	-	S	R	I	D	L	L	S	S	L	T	
Reaper	34	F	L	A	T	V	V	L	E	T	L	K	Q	Y	T	S	C	H	P	K	T	G	R	K	S	G	K	Y	R	K	P									

FIG. 6

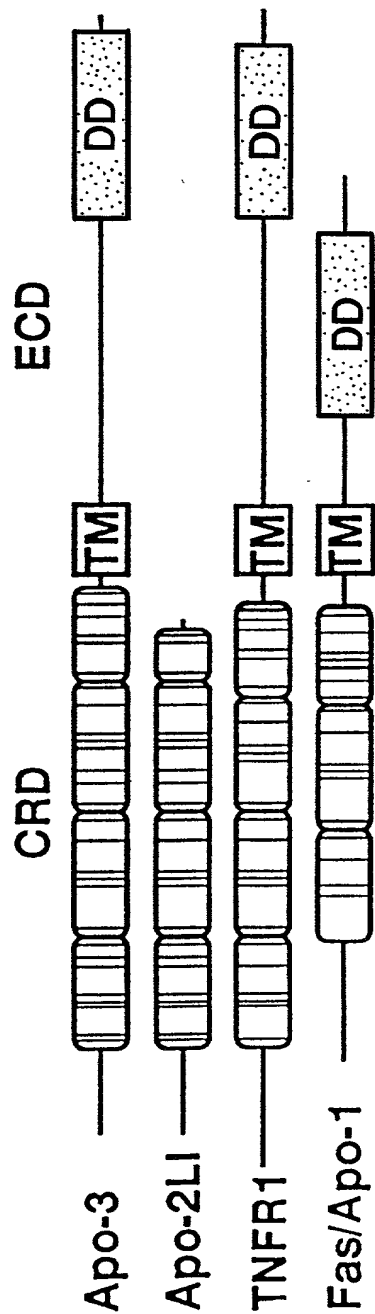


FIG. 7

FIG. 9A

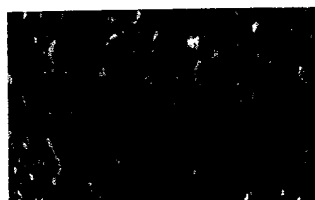


FIG. 9B



FIG. 9C



FIG. 9D



FIG. 9E

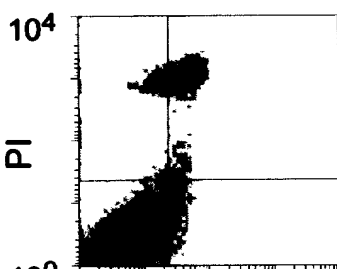


FIG. 9F

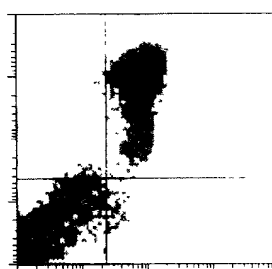


FIG. 9G

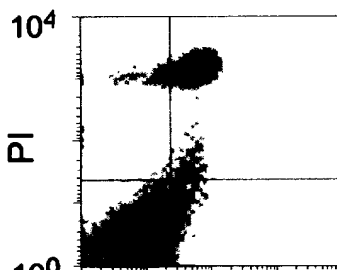


FIG. 9H

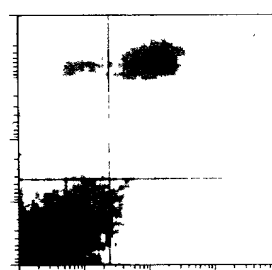


FIG. 9I

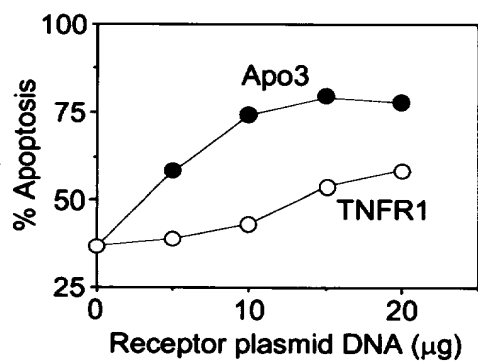


FIG. 9J

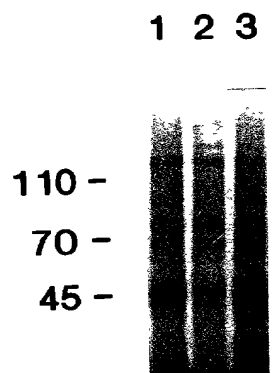


FIG. 8

1 2 3 4 5 6 7 8 9

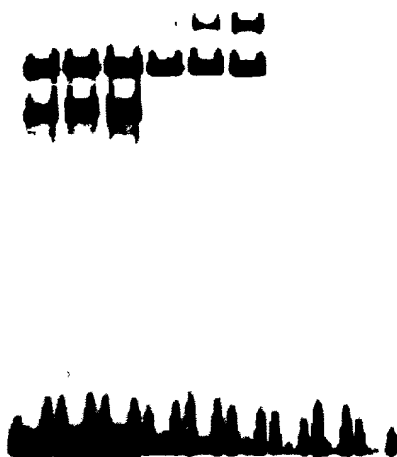
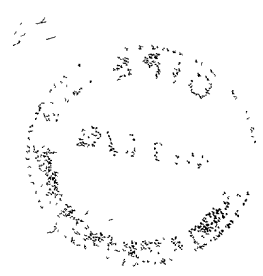


FIG. 10



Transfection

pRK5
TNFR1
Apo-3



◀ **Phospho-C-Jun**

FIG. 11



FIG. 12